CLASSROOM IN A BOOK®

The official training workbook from Adobe

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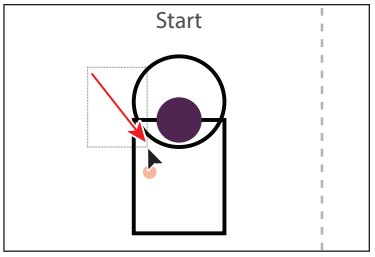
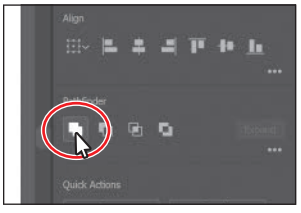
3 With the Selection tool (▶) selected, drag across the circle and rectangle with the black strokes to select both objects.

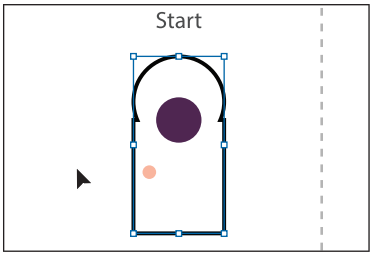
You need to create a shape that looks like the door to the right of the shapes you selected, labeled "Final." You will use the Properties panel and those shapes to create the final artwork.



Note: The Unite button in the Properties panel produces a similar result as the Shape Builder tool by combining the shapes into one.

4 With the shapes selected, in the Properties panel on the right, click the Unite button (⬛) to *permanently* combine the two shapes.





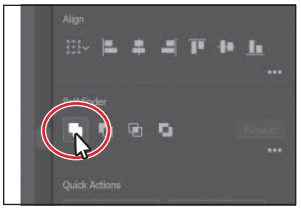
Tip: Clicking More Options (•••) in the Pathfinder section of the Properties panel will reveal the Pathfinder panel, which has more options.

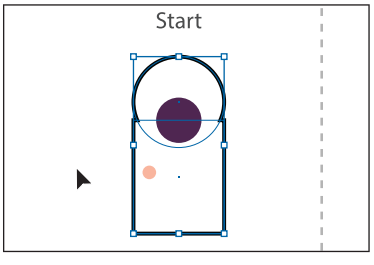
5 Choose Edit > Undo Add to undo the Unite command and bring both shapes back. Leave them selected.

Understanding shape modes

In the previous section, the pathfinders made a permanent change to the shapes. With shapes selected, Option-clicking (macOS) or Alt-clicking (Windows) any of the default set of Pathfinders showing in the Properties panel creates a compound shape rather than a path. The original underlying objects of compound shapes are preserved. As a result, you can still select each original object within a compound shape. Using a shape mode to create a compound shape can be useful if you think that you may want to retrieve the original shapes at a later time.

1 With the shapes still selected, press the Option (macOS) or Alt (Windows) key and click the Unite button (⬛) in the Properties panel.





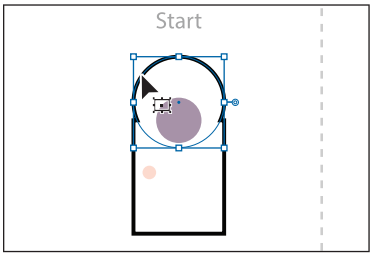
This creates a compound shape that traces the outline of what's left after the shapes are combined. You will still be able to edit both shapes separately.

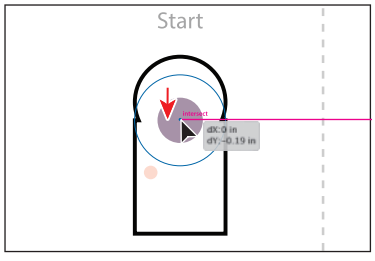
2 Choose Select > Deselect to see the final shape.

3 With the Selection tool, double-click the black stroke of the newly combined shape to enter isolation mode.

4 Click the edge of the circle at the top or drag across the path to select it.

5 Drag the selected circle straight down from the blue dot in the center. As you drag, press the Shift key. Drag down until you see that a horizontal Smart Guide appears and the center of the circle is aligned with the top edge of the rectangle. When in position, release the mouse button and then the Shift key.



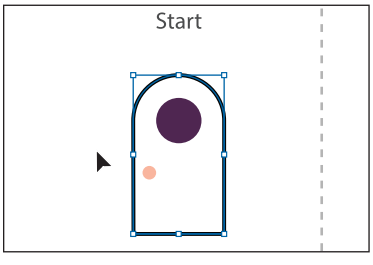


6 Press the Escape key to exit isolation mode.

You will now expand the artwork appearance. Expanding the appearance of a compound shape maintains the shape of the compound object, but you can no longer select or edit the original objects. You will typically expand an object when you want to modify the appearance attributes and other properties of specific elements within it.

7 Click away from the shape to deselect it and then click to select it again.

8 Choose Object > Expand Appearance.



The pathfinder effect is now *permanent* and the shapes are a single shape.

9 Change the Fill color in the Properties panel to the color Pink. Change the stroke weight to **0**.

10 Drag across the shapes that make up the door to select them all.

11 Click the Group button toward the bottom of the Properties panel to group the content together.

Tip: To edit the original shapes in a compound shape like this one, you can also select them individually with the Direct Selection tool ( ).

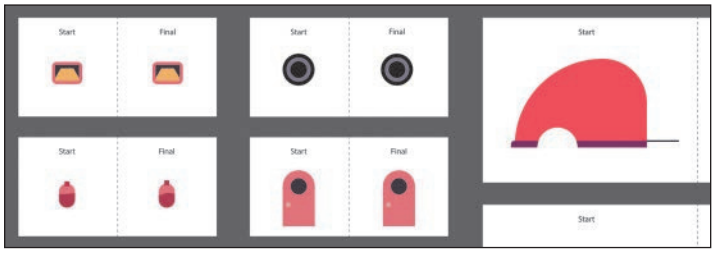
Note: You can also press the arrow keys to move the shape if you find it difficult to drag.

Creating the trailer

In this short section, you'll drag all of the pieces for the trailer together and group them.

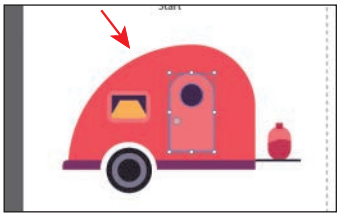
1 Choose View > Zoom Out several times.

2 Press the spacebar to access the Hand tool, and drag in the Document window to see the wheel, door, window, tank, and trailer artboards.



Note: You may find that with the Smart Guides on, it is difficult to position the content on the trailer. You can always turn off the Smart Guides (View > Smart Guides) and then turn them on when you are finished dragging the artwork.

3 With the Selection tool selected, drag the wheel, door, window, and tank artwork you created labeled "Start" onto the trailer artwork labeled "Start." Position them as you see in the figure.



4 Drag across the trailer artwork, and click the Group button in the Quick Actions section of the Properties panel.

Reshaping a path

In Lesson 3 you learned about creating shapes and paths (lines). You can use the Reshape tool to stretch parts of a path without distorting its overall shape. In this section, you'll change the shape of a line, giving it a bit of curve, so you can turn it into a flame.

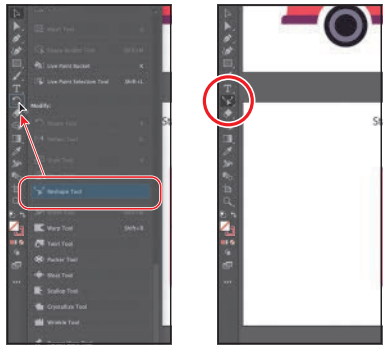
1 Choose 10 Flame from the Artboard Navigation menu in the lower-left corner of the Document window.

An example of what you will create is labeled "Final" on the right side of the artboard. You will work with the artwork labeled "Start" on the left. You'll reshape the straight line on the left to start.

2 Make sure the Smart Guides are on by choosing View > Smart Guides.

3 Select the Selection tool (▶), and click the path labeled "Start."

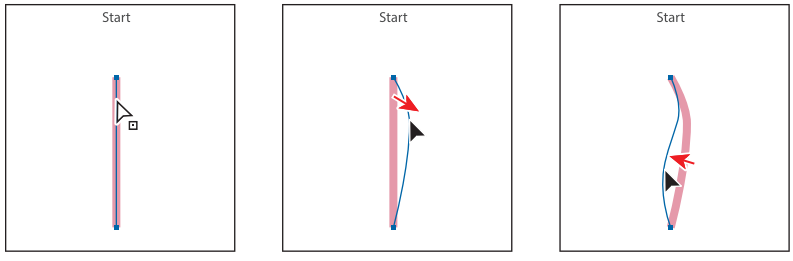
4 Click Edit Toolbar (•••) at the bottom of the toolbar. Scroll in the menu that appears, and drag the Reshape tool (↘) onto the Rotate tool (↻) in the toolbar on the left to add it to the list of tools.



Note: You may want to press the Escape key to hide the extra tools menu.

5 With the Reshape tool (↘) selected, move the pointer over the path. When the pointer changes (↘), drag away from the path to add an anchor point and reshape the path. Move the pointer farther down the path, and drag the path to the left. You can look at the flame shape labeled "Final," to the right, for guidance.

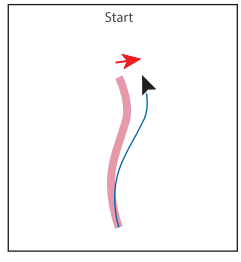
Note: You can use the Reshape tool on a closed path, like a square or circle, but if the entire path is selected, the Reshape tool will add anchor points and move the path.



The Reshape tool can be used to drag an existing anchor point or path segment. If you drag from an existing path segment, an anchor point is created.

6 Move the pointer over the top anchor point of the path and drag it to the right a little. Leave the path selected.

All of the anchor points were selected in the path, which means the Reshape tool will adjust the entire path.



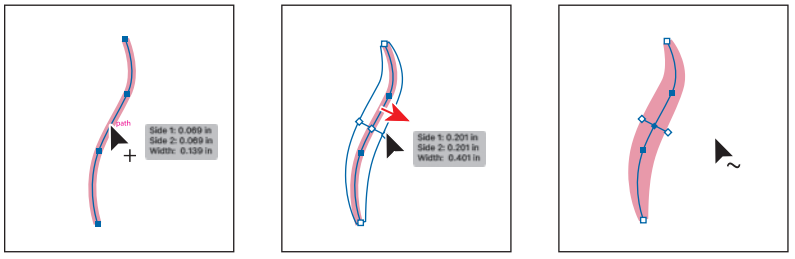
Note: Only selected anchor points are adjusted when dragging with the Reshape tool.

Using the Width tool

Not only can you adjust the weight of a stroke, like you did in Lesson 3, but you can alter regular stroke widths either by using the Width tool (🖌) or by applying width profiles to the stroke. This allows you to create a variable width along the stroke of a path. Next, you will use the Width tool to adjust the path you just reshaped to look like a flame.

Tip: You can drag one width point on top of another width point to create a discontinuous width point. If you double-click a discontinuous width point, the Width Point Edit dialog box allows you to edit both width points.

1 Select the Width tool (🖌) in the toolbar. Move the pointer over the middle of the path you just reshaped, and notice that the pointer has a plus symbol next to it (▸+) when it's positioned over the path. If you were to drag, you would edit the width of the stroke. Drag away from the line, to the right. Notice that, as you drag, you are stretching the stroke to the left and right equally. Release the mouse button when the measurement label shows Side 1 and Side 2 at *approximately* 0.2 in.



You just created a variable stroke on a path, not a shape with a fill. The new point on the original path is called the *width point*. The lines extending from the width point are the *handles*.

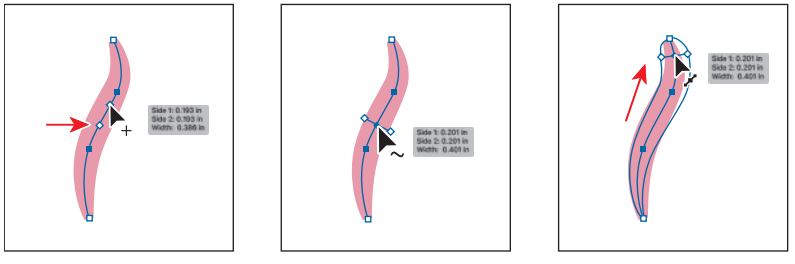
Tip: If you select a width point by clicking it, you can press Delete to remove it. When there is only one width point on a stroke, removing that point removes the width completely.

2 Click in an empty area of the artboard to deselect the point.

3 Move the pointer anywhere over the path, and the new width point you just created will appear (an arrow is pointing to it in the first part of the following figure). The width point you see on the path next to the pointer is where a new point would be created if you were to click.

Note: You don't have to position the pointer over the center of the line and drag to create another width point. You can drag from anywhere in the stroke area.

4 Move the pointer over the original width point, and when you see lines extending from it and the pointer changes (▸~), drag it up and down to see the effect on the path.



5 Choose Edit > Undo Width Point Change to return the width point to its original position on the path.

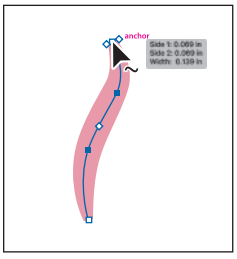
In addition to dragging to reposition a width point, you can double-click and enter values in a dialog box. That's what you'll do next.

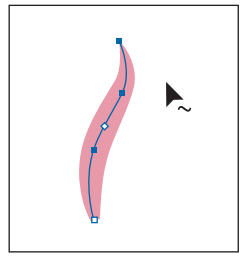
Tip: You can move the pointer over a width point, press the Option (macOS) or Alt (Windows) key, and drag to duplicate it.

6 Move the pointer over the top anchor point of the path, and notice that the pointer has a wavy line next to it (▸~) and the word "anchor" appears (see the

first part of the following figure). Double-click the point to create a new width point and to open the Width Point Edit dialog box.

7 In the Width Point Edit dialog box, change Total Width to **0 in**, and click OK.

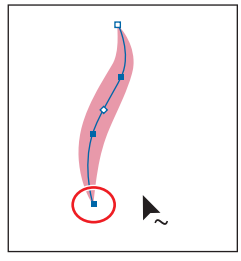


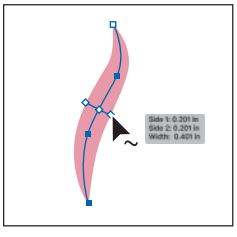


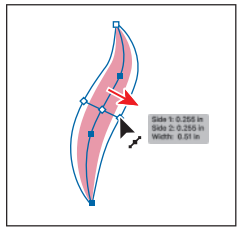
The Width Point Edit dialog box allows you to adjust the length of the width point handles, together or separately, with more precision. Also, if you select the Adjust Adjoining Width Points option, any changes you make to the selected width point affect neighboring width points as well.

8 Move the pointer over the bottom anchor point of the path, and double-click. In the Width Point Edit dialog box, change Total Width to **0 in**, and click OK.

9 Move the pointer over the original width point. When the width point handles appear, drag one of them away from the center of the path to make it a little wider. Leave the path selected for the next section.







▶ **Tip:** You can select a width point and Option-drag (macOS) or Alt-drag (Windows) one of the width point handles to change one side of the stroke width.

▶ **Tip:** After defining the stroke width, you can save the variable width as a *profile* that you can reuse later from the Stroke panel or the Control panel. To learn more about variable width profiles, search for "Painting with fills and strokes" in Illustrator Help (Help > Illustrator Help).

Finishing up the illustration

To finish the illustration, you'll drag the artwork you grouped on each artboard into the main illustration on the left.

1 Select the Selection tool (▶) and, with the path selected, choose Edit > Copy and then Edit > Paste to paste a copy.

2 With the copy selected, choose Object > Path > Outline Stroke so you can more easily scale the shape without having to adjust a stroke weight.